

```
11-52 19-49 39-50 46-51
ring bonds :
    1-2 1-6 1-52 2-3
                        3-4 4-5 5-6 5-49 7-8 7-12 8-9 9-10 10-11 11-12 13-14
                        16-17 16-52 17-18 18-51 19-20 19-24 20-21 21-22 22-23 23-24
    13-18 14-15 15-16
    25-26 25-30 25-50 26-27 27-28 27-49 28-29 29-30 31-32 31-36 32-33
                                                                               32-51
    34-35 34-50 35-36 37-38 37-42 38-39 39-40 40-41 41-42 43-44 43-48 44-45 45-46
    46-47 47-48
exact/norm bonds :
    1-52 5-49 16-52 18-51 25-50 27-49 32-51 34-50
exact bonds :
    11-52 19-49 39-50 46-51
normalized bonds :
   1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15
    15-16 16-17 17-18 19-20 19-24
                                      20 - 21 \quad 21 - 22 \quad 22 - 23 \quad 23 - 24 \quad 25 - 26 \quad 25 - 30 \quad 26 - 27 \quad 27 - 28
   28-29 29-30 31-32 31-36 32-33 33-34 34-35
41-42 43-44 43-48 44-45 45-46 46-47 47-48
                                     33-34 34-35 35-36 37-38 37-42 38-39 39-40 40-41
Match level :
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
    12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
   22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom
    32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom
```

42:Atom 43:Atom 44:Atom 45:Atom 46:Atom 47:Atom 48:Atom 49:Atom 50:Atom 51:Atom

52:Atom

ANSWER 1 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:755107 CAPLUS

DOCUMENT NUMBER: 137:272563

TITLE: Colorimetric and fluorimetric analysis of

carbohydrates

INVENTOR(S): Strongin, Robert M.; Cabell, Larry Allen; St. Luce,

Nadia; Lewis, Patrick T.; He, Ming; Escobedo Cordova,

Jorge O.; Davis, Claude Joseph

PATENT ASSIGNEE(S):

SOURCE: U.S. Pat. Appl. Publ., 16 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|------------------------|------------|----------|-----------------|------------|--|--|
| | | | i | | | |
| US 2002142475 | A 1 | 20021003 | US 2001-778158 | 20010205 < | | |
| US 6534316 | B2 | 20030318 | | | | |
| PRIORITY APPLN. INFO.: | | | US 2001-778158 | 20010205 | | |

OTHER SOURCE(S): MARPAT 137:272563

Methods are disclosed for the simple, rapid, and selective colorimetric detection of carbohydrates, including fructose, glucose, sialic acid, and oligosaccharides. There is no need for any prior hydrolysis or other chemical modification or of the analytes. Resorcinarenes, xanthene dyes, and related compds., formally produced by the reaction of 2 equiv of resorcinol and a suitable electrophilic condensation partner, are used as chromophores or fluorophores for the detection of sugars and other carbohydrates.

ΙT 194935-23-4 195008-64-1

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (colorimetric and fluorimetric anal. of carbohydrates)

194935-23-4 CAPLUS RN

CN Boronic acid, [(4,6,10,12,16,18,22,24-octahydroxypentacyclo[19.3.1.13,7.19 ,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23dodecaene-2,8,14,20-tetrayl)tetra-4,1-phenylene]tetrakis-, stereoisomer (9CI) (CA INDEX NAME)

INVENTOR(S): Harris, Stephen J. PATENT ASSIGNEE(S): Aids Care Pharma Limited, Ire. SOURCE: PCT Int. Appl., 44 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. -----____ ----------WO 2002044121 A1 20020606 WO 2001-IE150 20011130 <--W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002020992 AU 2002-20992 A5 20020611 20011130 <--EP 1345884 20030924 Α1 EP 2001-998526 20011130 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRIORITY APPLN. INFO.: IE 2000-983 A 20001201 WO 2001-IE150 W 20011130 OTHER SOURCE(S): CASREACT 137:6006; MARPAT 137:6006 GI * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT * Title compds. I [R1 = OCH2CO2K, OCH2CO2H or OCH2CONH2; R2 = R1 or NO2; R3 = H, 2-HO2CCH2OC6H4, or 4-XC6H4 where X = halo (preferably F or Br); R4 = H or halo (preferably Br)] are prepared and disclosed as antiviral agents. Thus, II was prepared in four steps via cyclocondensation 4-fluorobenzaldehyde with pyrogallol and subsequent bromination, O-alkylation with Et bromoacetate and hydrolysis with KOH. II possessed a therapeutic index (TC50/EC50 μm) of 4,000. I were found to have an additive effect when administered with AZT, and therefore, the compds. are useful as pharmaceutical compns. in the treatment of AIDS. 433334-86-2P 433334-87-3P 433334-88-4P IT 433334-89-5P 433334-90-8P 433334-94-2P 433334-95-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediates; preparation and antiviral activity of calixarenes as anti-AIDS agents) RN 433334-86-2 CAPLUS CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,5,6,10,11,12,16,17,18,22,23,24-dodecol, 2,8,14,20-tetrakis(4-fluorophenyl)- (9CI) (CA INDEX NAME)

ANSWER 3 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

137:6006

2002:428850 CAPLUS

Preparation of Calixarenes as Anti-viral compounds

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

L5 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:722687 CAPLUS

DOCUMENT NUMBER: 131:318951

TITLE: Controlled-release microbicidal compositions

INVENTOR(S): Ghosh, Tirthankar

PATENT ASSIGNEE(S): Rohm and Haas Company, USA SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent English

LANGUAGE: Er FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT | CENT N | 10. | | | KIND | | ATE | | P | PPI | LICAT | ION 1 | NO. | | D | ATE | | |
|----------|---------|-------------|-----|-----|------------|------|------|---------|-----|------|-------|-------|------------|-----|-----|-------|-----|---|
| | | · - | | | | - | | | - | | | | - - | | - | | | |
| EP | 95496 | 55 | | | A 1 | 1 | .999 | 1110 | E | P : | 1999- | 30334 | 43 | | 1 | 99904 | 128 | < |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | , IT, | LI, | LU, | NL, | SE, | MC, | PT, | |
| | | ΙE, | SI, | LT, | LV, | FI, | RO | | | | | | | | | | | |
| AU | 99239 | 24 | | | A1 | 1 | .999 | 1111 | P | U. | 1999- | 23924 | 4 | | 1 | 99904 | 122 | < |
| SG | 72947 | 7 | | | A1 | 2 | 000 | 0523 | 5 | G : | 1999- | 1981 | | | 1 | 99904 | 129 | < |
| NO | 99020 | 98 | | | Α | 1 | .999 | 1108 | N | 0 | 1999- | 2098 | | | 1 | 99904 | 430 | < |
| CN | 12341 | .78 | | | Α | 1 | .999 | 1110 | | N : | 1999- | 10529 | 98 | | 1 | 99904 | 430 | < |
| BR | 99014 | 14 | | | Α | 2 | 001 | 0313 | E | R : | 1999- | 1414 | | | 1 | 9990 | 504 | < |
| JP | 20000 | 0140 |)3 | | A2 | 2 | 000 | 0107 | | P: | 1999- | 12592 | 26 | | 1 | 9990 | 506 | < |
| PRIORITY | APPI | м. I | NFO | . : | | | | | τ | is : | 1998- | 8422 | 1P | | P 1 | 9980 | 505 | |
| OTHER SO | OURCE (| (S): | | | MARP | AT 1 | 31: | 3189 | 51 | | • | | | | | | | |

AB Thus title compns. comprise a microbicide, such as an isothiazolone derivative and a calixarene compound Applications include microbiol. control in cooling towers, air washers, mineral slurries, paper manufacture, adhesives, caulks, mastics, sealants, cosmetics, leather, wood, plastics, etc., as well as use as marine antifouling compns.

IT 129831-85-2

RL: MOA (Modifier or additive use); USES (Uses)

(formulation ingredient in controlled-release microbicidal compns.)

RN 129831-85-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetraphenyl- (9CI) (CA INDEX NAME)

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:407878 CAPLUS

DOCUMENT NUMBER: 131:110650

TITLE: Simple and rapid visual sensing of saccharides AUTHOR(S): Davis, Claude J.; Lewis, Patrick T.; McCarroll,

Matthew E.; Read, Mark W.; Cueto, Rafael; Strongin,

Robert M.

CORPORATE SOURCE: Department of Chemistry, Louisiana State University,

Baton Rouge, LA, 70803, USA

SOURCE: Organic Letters (1999), 1(2), 331-334

CODEN: ORLEF7; ISSN: 1523-7060

Ι

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:407066 CAPLUS

DOCUMENT NUMBER: 131:88297

TITLE: Benzyl ether dendrimers and their intermediate

calix[4]resorcinarene for manufacture of dendritic

INVENTOR (S): Yamakawa, Yoshitaka; Ueda, Mitsuru; Asai, Michihiko;

Takeuchi, Kazuhiko; Nagahata, Ritsuko

PATENT ASSIGNEE (S): Agency of Industrial Sciences and Technology, Japan;

Zaidan Hojin Kagaku Gijitsu Senryakusuishin Kiko

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------|------|----------|-----------------|------------|
| | | | | |
| JP 11171812 | A2 | 19990629 | JP 1997-356303 | 19971209 < |
| RIORITY APPLN. INFO.: | | | JP 1997-356303 | 19971209 |

OTHER SOURCE(S):

MARPAT 131:88297

For diagram(s), see printed CA Issue.

The dendrimers I [R = (substituted) benzyloxy; R1 = H, (substituted) AB benzyloxy; R2-R4 = H, OH, halo, alkyl, aryl, aralkyl, alkaryl, alkoxy, alkenyl(oxy), acyl(oxy), alkoxycarbonyl, cyano, NO2, (substituted) benzyloxy; ≥1 of R2-R4 = (substituted) benzyloxy] and their intermediate I (R = R2 = R4 = OH, R1 = R3 = H) (II) are claimed. Thus, resorcinol was condensed with 3,5-dihydroxybenzaldehyde to give 48% II, which was benzylated by 3,5-diallyloxybenzyl bromide (III) in Me2CO in the presence of 18-crown-6 ether and K2CO3 under reflux for 48 h to give 79% I [R = R2 = R4 = CH2C6H3(OCH2CH:CH2)2-3,5, R1 = R3 = H]. The allyloxy group-containing dendrimer was deallylated and further benzylated with III. IT

220803-32-7P 229492-15-3P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of calix[4]resorcinarene benzyl ether dendrimers)

RN 220803-32-7 CAPLUS

Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 CN 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetrakis(3,5-dihydroxyphenyl)- (9CI) (CA INDEX NAME)

ANSWER 12 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:394118 CAPLUS.

DOCUMENT NUMBER: 129:128942

TITLE: Toner for electrostatic latent image development

INVENTOR(S): Ueda, Hideaki; Furukawa, Keiichi

PATENT ASSIGNEE(S): Minolta Camera Co., Ltd., Peop. Rep. China SOURCE:

Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|--------------|----------------------------------|------------------------|
| | | - | | |
| JP 10161349 PRIORITY APPLN. INFO.: GI | A2 | 19980619 | JP 1996-316063 JP 1996-316063 | 19961127 < 19961127 |

R3 R7 OR2 R50 OR6 CH CH R8 Ι

AB The title toner contains a resorcinol arene derivative I (R1, R2, R5, R6 = H, C1-5 alkyl, (CH2)mCO2R9; R9 = H, lower alkyl; m= 1-3; R1, R2, R5, and R6 cannot be H in the same time; R3, R7 = H, halo, alkoxy, carboxylnitro, alkyl, hydroxy; R4, R8 = alkyl, aryl, heterocyclyl; n = 1-4) as a charge controlling agent. The toner shows superior charge stability, resistance to heat and solvent, color reproducibilit

L5 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:80955 CAPLUS

DOCUMENT NUMBER: 128:197037

AUTHOR (S):

TITLE: Solubilization of organic compounds by

calix[4]resorcinarenes bearing four hydrophobic chains
Koide, Yoshifumi; Li, Bo; Kawaguchi, Yuichi; Shosenji,

Hideto; Esumi, Kunio

CORPORATE SOURCE: Dep. Appl. Chem., Fac. Eng., Kumamoto Univ., Kumamoto,

860, Japan

SOURCE: Nihon Yukagakkaishi (1998), 47(1), 57-63

CODEN: NIYUFC; ISSN: 1341-8327

PUBLISHER: Nihon Yukagaku Gakkai

DOCUMENT TYPE: Journal LANGUAGE: Japanese

Calix[4] resorcinarenes each bearing four hydrophobic side chains ([4]Ar-Rn:tetraalkyl side chains [4]Ar-Ph: tetra-Ph side chains, and [4]Ar-N: tetranaphthyl side chains) were examined as solubilizing agents. [4]Ar-Rn, [4]Ar-Ph, and [4]Ar-N showed stable orientation at the surface or interface and high solubilization capacity was also noted for organic compds. such as hexyl alc., benzene, and toluene. Solubilization capacity was high near cmc, and aromatic compound solubility decreased in proportion to compound mol. size. [4]Ar-R6 bearing tetra hexyl chains was the most efficient solubilizer in [4]Ar-Rn, [4]Ar-Ph, and [4]Ar-N; 11-fold molar hexanol could be dissolved in 2 + 10-3 M [4]Ar-R6. Long-alkyl chain alc. was highly solubilized with [4]Ar-Rn of the same chain length. The high solubilization may be considered due to microemulsion formation based on the orientation of [4]Ar-Rn at the compound-H2O interface. Dyes could also be dissolved in [4]Ar-Rn solution by inclusion.

IT 129831-85-2 203714-15-2

RL: PEP (Physical, engineering or chemical process); PROC (Process) (solubilization of organic compds. by calix[4]resorcinarenes bearing four hydrophobic chains)

RN 129831-85-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetraphenyl- (9CI) (CA INDEX NAME)

ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 1995:994163 CAPLUS

DOCUMENT NUMBER: 124:55584

TITLE: Preparation of calixarene-based compounds having

antibacterial, antifungal, anticancer, and anti-HIV

activity

INVENTOR(S): Harris, Stephen J.

PATENT ASSIGNEE(S):

Ire.

SOURCE:

PCT Int. Appl., 148 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|------------------------|-----------------|------------------------|----------------|
| | | | |
| WO 9519974 | A2 19950727 | WO 1995-IE8 | 19950124 < |
| WO 9519974 | A3 19950921 | | |
| W: AT, AU, BB, | BG, BR, BY, CA, | CH, CN, CZ, DE, DK, FI | GB, HU, JP, |
| | RO, UA, US | | |
| RW: AT, BE, CH, | DE, ES, FR, GB, | GR, IE, LU, NL, SE, GA | A, ML, NE, SN, |
| TD, TG | | | |
| AU 9515453 | A1 19950808 | AU 1995-15453 | 19950124 < |
| PRIORITY APPLN. INFO.: | | IE 1994-57 ; | A 19940124 |
| | | WO 1995-IE8 | A 19950124 |

OTHER SOURCE(S): MARPAT 124:55584

GI For diagram(s), see printed CA Issue.

AB Calixarene-based compds., which are calixarenes or oxacalixarenes, acyclic phenyl-formaldehyde oligomers, cyclotriveratrylene derivs., cyclic tetrameric resorcinol-aldehyde derivs. known as Hogberg compds. and cyclic tetrameric pyrogallol-aldehyde derivs., are prepared For example, calixarenes or oxacalixarenes are represented by general formula [I; n + m = 3-8; m = 0-3; n = 0-8; R1 = H, **halo**, hydrocarbyl, aryl, (un) substituted hydrocarbylaryl, NO2, SO3M1; wherein M1 = alkali metal, SO3H; R1 = OR2; wherein R2 = CH2CO2R3, CH2CO2Mp/p, CH2CONR4R5; wherein R3 = (un) substituted alkyl; M = metal, ammonium ion; p = the charge on the metal ion; R4 or R5 may be the same or different, or both may be part of amino acid ester of poly(amino acid ester) or one or more of the same or different amino acids or part of a cyclic polyene antibiotic/antifungal drug or part of a cyclic nitrogen heterocycle; X = halo, NO2, CO2H, cyano, other electron withdrawing group]. Thus, n-butyraldehyde and pyrogallol in a 1:4 mixture of 37% aqueous HCl and EtOH was refluxed under N for

90 min to give a cyclic tetramer (II; R = X = H), which was brominated with Br in CHCl3 to II (R = H, X = Br) and etherified with Et bromoacetate in the presence of K2CO3 in refluxing acetone to give II (R = CH2CO2Et, X The latter compound was saponified with KOH in refluxing EtOH , acidified with aqueous HCl, and treated with 25% aqueous NH4OH to give II (R = 1CH2CO2-NH4+, X = Br). The latter compound in vitro inhibited the infection of C8166 cells with HIV-2, SIV (Simian immunodeficiency virus), and HIV-1

IT 171799-59-0P 171799-60-3P 171799-61-4P 171799-62-5P 171799-63-6P 171799-64-7P 171799-65-8P 171799-66-9P 171799-67-0P 171799-68-1P 171799-69-2P 171799-70-5P 171799-71-6P 171799-72-7P 171799-73-8P 171799-74-9P 171799-75-0P 171799-76-1P 171799-77-2P 171799-78-3P 171799-79-4P 171799-80-7P 171799-81-8P 171799-82-9P 171799-83-0P 171799-84-1P 171799-85-2P

with EC50 of 10, 20, and 0.03 μM.

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171799-86-3P 171799-87-4P 171799-88-5P
    171799-89-6P 171799-90-9P 171799-91-0P
    171799-92-1P 171799-93-2P 171799-94-3P
    171799-95-4P 171799-96-5P 171799-97-6P
    171799-98-7P 171799-99-8P 171800-00-3P
    171800-01-4P 171800-02-5P 171800-03-6P
    171800-04-7P 171800-05-8P 171800-06-9P
    171800-07-0P 171800-08-1P 171800-09-2P
    171800-10-5P 171800-11-6P 171800-12-7P
    171800-13-8P 171800-14-9P 171800-21-8P
    171800-26-3P 171800-67-2P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
       (preparation of calixarene-based compds. having antibacterial, antifungal,
       anticancer, and anti-HIV activity)
RN.
    171799-59-0 CAPLUS
    CN
     111,211111111,211111111-[[25,26,27,28-tetrabromo-2,8,14,20-tetrakis(3-
    bromophenyl)pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-
    1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-
    4,5,6,10,11,12,16,17,18,22,23,24-dodecayl]dodecakis(oxy)]dodecakis-,
    dodecapotassium salt (9CI) (CA INDEX NAME)
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PAGE 1-A

●12 K

L5 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:947266 CAPLUS

DOCUMENT NUMBER: 124:101807

TITLE: Triboelectric material for positively charging

electrophotographic toner

INVENTOR(S): Iwasa, Keiko; Mukushiro, Osamu; Matsura, Juji

PATENT ASSIGNEE(S): Hodogaya Chemical Co Ltd, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|----------------------------|------------|
| | | | | |
| JP 07234547 | A2 | 19950905 | JP _. 1994-47924 | 19940223 < |
| PRIORITY APPLN. INFO.: | | | JP 1994-47924 | 19940223 |
| OTHER SOURCE(S): | MARPAT | 124:101807 | | • |

GI For diagram(s), see printed CA Issue.

The triboelec. material contains a calixarene derivative I or II (R1 = H, C1-12 alkyl, Ph, acyl, (CH2)mCO2R4; R2, R7 = H, C1-12 alkyl, OH, C1-8 alkoxy, NH2, C1-8 alkylamino, halo, Ph, NO2, SO3H, C1-8 sulfonyl, CO2H, ester, acyl, Me3Si, nitril; R3, R8 = H, C1-12 alkyl, Q, N-or O-containing heterocyclic group; n = 4-8; R4 = H, alkyl; m = 1-3; R5 = H, C1-8 alkyl, OH, C1-8 alkoxy, halo, NO2, NH2, alkylamino, carbamoyl, CO2H, C1-8 ester, acyl; l = 1-5; R6 = H, C1-8 alkyl) as a charge-controlling agent at least on the part of the surface. The material showed good repeating durability.

IT 172464-59-4

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(triboelec. material containing calixarene charge-controlling agent for pos. charging electrophotog. toner with good repeating durability)

RN 172464-59-4 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-25,26,27,28-tetracarboxylic acid, 5,11,17,23-tetrabutyl-2,8,14,20-tetrakis[4-(ethoxycarbonyl)phenyl]- (9CI) (CA INDEX NAME)

ANSWER 16 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:947265 CAPLUS

DOCUMENT NUMBER: 124:101806

TITLE: Electrostatographic developer toner containing

calixarene derivative as charge-controlling agent

INVENTOR (S):

Iwasa, Keiko; Mukushiro, Osamu; Matsura, Juji

PATENT ASSIGNEE(S):

Hodogaya Chemical Co Ltd, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------------|------|----------|-----------------|------------|
| | | | | |
| JP 07234544 | A2 | 19950905 | JP 1994-47923 | 19940223 < |
| JP 3313871 | B2 | 20020812 | | |
| IORITY APPLN. INFO.: | | | JP 1994-47923 | 19940223 |

PRI

MARPAT 124:101806

OTHER SOURCE(S): For diagram(s), see printed CA Issue.

The toner contains a calixarene derivative I (R1 = H, C1-12 alkyl, OH, C1-8 alkoxy, amino, C1-8 alkylamino, Ph; R2 = C4-12 alkyl, Q; R3 = H, C1-8 alkyl, OH, C1-8 alkoxy, halo, nitro, amino, carbamoyl, alkylamino, carboxy, C1-8 ester, acetyl; m = 1-5) or II (R4 = H, C1-8 alkyl; R5 = H, C1-12 alkyl, Ph, C1-8 alkoxy, amino, C1-8 alkylamino; R6 = H, alkyl, Q). The toner showed good storage stability, and gave low stains.

IT 172464-59-4 172464-60-7

RL: TEM (Technical or engineered material use); USES (Uses) (electrostatog, developer toner containing calixarene derivative charge-controlling agent)

172464-59-4 CAPLUS

Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 CN 5,17,19(26),21,23-dodecaene-25,26,27,28-tetracarboxylic acid, 5,11,17,23-tetrabutyl-2,8,14,20-tetrakis[4-(ethoxycarbonyl)phenyl]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 172464-60-7 CAPLUS

Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 CN5,17,19(26),21,23-dodecaene-25,26,27,28-tetracarboxylic acid, 5,11,17,23-tetrabutyl-2,8,14,20-tetrakis(2-hydroxyphenyl)-, tetraoctyl ester (9CI) (CA INDEX NAME)

Me—
$$(CH_2)_{7}$$
— O— C— O— $(CH_2)_{7}$ — Me— $($

L5 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:828347 CAPLUS

DOCUMENT NUMBER: 123

123:241910

TITLE:

Friction charge-providing member for

positively-chargeable toner.

INVENTOR(S):

Mukudai, Osamu; Matsuura, Yuuji; Niimura, Isao;

Watanabe, Kayoko; Iwasa, Keiko

PATENT ASSIGNEE(S):

Hodogaya Chemical Co., Ltd., Japan

SOURCE:

Eur. Pat. Appl., 22 pp.

DOCUMENT TYPE:

Patent

CODEN: EPXXDW

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|----------|------------|------------------|------------|
| | - | | | |
| EP 655658 | A2 | 19950531 | EP 1994-105509 | 19940408 < |
| EP 655658 | A3 | 19960703 | | |
| R: DE, FR, GB | | | | |
| JP 07128916 | A2 | 19950519 | JP 1993-293798 | 19931101 < |
| JP 08262871 | A2 | 19961011 | JP 1994-93926 | 19940408 < |
| PRIORITY APPLN. INFO.: | | | JP 1993-293798 A | 19931101 |
| OTHER COURCE (C). | MADDAG | 100.041010 | | |

OTHER SOURCE(S):

MARPAT 123:241910

GI For diagram(s), see printed CA Issue.

AB A friction charge-providing member for pos.-chargeable toner comprises a parent material and a charge-controlling agent on the surface selected from I and II [A and B = H, halogen, alkoxyl, carboxyl, hydroxyl, ester, nitro, amino; alkylamino, alkyl which may contain a substituent(s) or a Ph group which may contain a substituent(s); R = H, alkyl or Ph or naphthyl group which may contain a substituent(s); m = an integer 2 to 16; and n = an integer 4 to 8]. The toner provides improved charging stability.

IT 168405-65-0

RL: TEM (Technical or engineered material use); USES (Uses) (charge-controlling agent for electrostatog. toner)

RN 168405-65-0 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 5,11,17,23-tetramethyl-2,8,14,20-tetrakis(4-methylphenyl)- (9CI) (CA INDEX NAME)

ANSWER 18 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN.

ACCESSION NUMBER: 1995

1995:794919 CAPLUS

DOCUMENT NUMBER:

123:325712

TITLE:

Electrostatic image developing toner.

INVENTOR(S):

Mukudai, Osamu; Matsuura, Yuuji; Niimura, Isao;

Watanabe, Kayoko; Isawa, Keito

PATENT ASSIGNEE(S):

Hodogaya Chemical Co., Ltd., Japan

SOURCE:

LANGUAGE:

Eur. Pat. Appl., 22 pp

CODEN: EPXXDW

DOCUMENT TYPE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-------------------|------------|
| | | | | |
| EP 651294 | A1 | 19950503 | EP 1994-105508 | 19940408 < |
| EP 651294 | B1 | 19980708 | • | |
| R: DE, FR, GB | | • | | |
| JP 07175269 | A2 | 19950714 | JP 1994-93927 | 19940408 < |
| US 5679489 | A | 19971021 | US 1996-620150 | 19960322 < |
| PRIORITY APPLN. INFO.: | | | JP 1993-293799 A | 19931101 |
| | | | US 1994-224523 B1 | 19940407 |

OTHER SOURCE(S):

MARPAT 123:325712

GI For diagram(s), see printed CA Issue.

AB An electrophotog. toner free of metal such as Cr comprises ≥ 1 charge-controlling agent selected from I and II [A, B = H, halogen , alkoxy carboxyl, OH, ester, nitro, amino, alkylamino, alkyl, Ph; R = H, alkyl, Ph, naphthyl; m = 2-16; n = 4-8]. The toner shows no deterioration during preparation, excellent stability, excellent dispersibility in binder resin, and excellent friction chargeability.

IT 168405-65-0

RL: MOA (Modifier or additive use); USES (Uses) (charge-controlling agent for electrophotog. toners)

RN 168405-65-0 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 5,11,17,23-tetramethyl-2,8,14,20-tetrakis(4-methylphenyl)- (9CI) (CA INDEX NAME)

Ľ5 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 1992:613749 CAPLUS DOCUMENT NUMBER: 117:213749 TITLE: Epoxy resins based on macrocyclic calixarenes INVENTOR(S): Morton, Trevor Charles; Hodgkin, Jonathan Howard; Dao Buu Nguyen PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organisation, Australia PCT Int. Appl., 33 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: APPLICATION NO. PATENT NO. KIND DATE DATE ---------WO 9206128 A1 19920416 WO 1991-AU455 19911003 <--W: AU, CA, JP, KR, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE CA 2093326 AA 19920404 CA 1991-2093326 19911003 <--AU 9186540 A1 19920428 AU 1991-86540 19911003 <--AU 648350 B2 19940421 JP 06501971 T2 19940303 JP 1991-516194 19911003 <--EP 591200 EP 1991-917527 A1 19940413 19911003 <--EP 591200 В1 19980506 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE AT 165852 AT 1991-917527 Ε 19980515 19911003 <--US 5439989 Α 19950808 US 1993-30303 19930503 <--PRIORITY APPLN. INFO.: AU 1990-2610 A 19901003 AU 1990-3871 A 19901212 WO 1991-AU455 A 19911003 GI For diagram(s), see printed CA Issue. Title compds. comprise ≥1 compound I [n = 3-10 integer; R1, R3 = AB independently H, OH, alkoxy, allyloxy, glycidyloxy; R2 = H, (halo)aralkyl, (halo)alkyl, (halo)aryl; R4 = H, (halo)alkyl, (alkyl) - or (halo)aralkyl, (halo)aryl; R5 = H, aryl, alkyl; and each I contains ≥1 epoxy group]. Curable and fiber impregnating compns. are claimed and have high glass temps. and optional tougheners. Thus, a mixture of Cmethylcalix[4]resorcinarene, iso-PrOH and MeOH was epoxidized at 50°, treated with methanolic NaOH, mixed with 4,4'-diaminodiphenyl sulfone, Hycar 1300X13 added (15%), the mixture degassed in vacuo, BF3.EtNH2 catalyst added, and the mixture poured into a mold and cured at 100-180° to show glass temperature 285° and fracture toughness. 0.68 MPa-m0.5. TТ **129831-85-2DP**, epoxidized

RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(preparation and curing of, for fracture toughness)

RN 129831-85-2 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetraphenyl- (9CI) (CA INDEX NAME)

LÍS ANSWER 20 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:236060 CAPLUS

DOCUMENT NUMBER: 112:236060

TITLE: Flame-proof polycarbonates containing units deriving

from halogenated macrocyclic compounds

INVENTOR(S):

Petri, Alberto

PATENT ASSIGNEE(S):

Enichem Tecnoresine S.p.A., Italy

SOURCE:

Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|-------------|-----------------------|-------------|
| | | | | |
| EP 350092 | A2 | 19900110 | EP 1989-201660 | 19890623 < |
| EP 350092 | A3 | 19910703 | | |
| R: AT, BE, CH, | DE, ES | , FR, GB, G | R, IT, LI, LU, NL, SE | |
| US 4987269 | A | 19910122 | US 1989-371513 | 19890626 < |
| ZA 8904910 | Α | 19900328 | ZA 1989-4910 | 19890628 < |
| CA 1330095 | A1 | 19940607 | CA 1989-604652 | 19890704 < |
| NO 8902797 | A | 19900109 | NO 1989-2797 | 19890706 < |
| NO 174812 | В | 19940405 | | |
| NO 174812 | С | 19940713 | | |
| DK 8903370 | A | 19900109 | DK 1989-3370 | 19890707 < |
| JP 02067316 | A2 | 19900307 | JP 1989-174345 | 19890707 < |
| US 5089595 | Α | 19920218 | US 1990-573875 | 19900828 < |
| PRIORITY APPLN. INFO.: | | | IT 1988-21284 | A 19880708 |
| | | | US 1989-371513 | A3 19890626 |
| GI | | | | |

$$R^{1}$$
 R^{2}
 R^{2}
 R^{2}
 R^{3}
 R^{4}
 R^{2}
 R^{2}
 R^{4}
 R^{4}
 R^{2}
 R^{4}
 R^{2}
 R^{4}
 R^{2}
 R^{2}
 R^{2}

AB The title polymers contain the units derived from a bisphenol and a macrocyclic compound (I) (R1 = H, OH, Br, Cl; R2 = Cl, Br). Thus, dissolving bisphenol A 84, I (R1 = H, R2 = p-Cl, prepared by condensation of resorcinol with p-chlorobenzaldehyde) 1.37, NaOH 65.2, and Na2S2O6 0.02 g

Ι

in 650 mL H2O, adding 6.3 mL 0.5 N aqueous NEt3 solution and 1.7 g p-tert-butylphenol in 1.3 L CH2Cl2, bubbling 44 g COCl2 over 30 min, and stirring for 2 h gave a polymer having UL 94 test value V-0.

IT 127261-94-3P 127335-23-3P 127335-25-5P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation and polymerization of)

RN 127261-94-3 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaen-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetrakis(5-bromo-2-hydroxyphenyl)- (9CI) (CA INDEX NAME)